

Somerset Career and Technical Center

Career and Technical Education Observation
December 5th, 2012

Observation Report by

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PURPOSE:

Career and Technical Education was an avenue of education I was not greatly familiar with until working on the Maine State Board of Education. Through my experience on the Maine State Board of Education, I have gained exceptional information regarding the policies and laws surrounding Career and Technical Education and have observed the tremendous impact Career and Technical Education has on our state. The opportunity to observe Career and Technical Education at Somerset Career and Technical Center was an occasion in which I was able to view education in one of its greatest forms. I conducted this project to observe Career and Technical Education at one of Maine's facilities to better understand the instruction, participation and interaction of students and leaders involved with this aspect of education on a daily basis. In just one day of observation and interaction at Somerset Career and Technical Center, I have gained a greater understanding of the daily roles of the students and leaders in Career and Technical Education and greatly admire the work the members of this facility have put into making our students become the leaders of tomorrow.

REPORT:

I have written this report in hopes to disseminate the information I have gained on Career and Technical Education from my project. The report is broken down into eight main parts:

- Somerset Career and Technical Center Mission Statement
- Overview of the day
- Summaries of the programs and classes observed
- Themes of interviews with students
- Student Leadership Meeting
- Discussions with faculty members
- Conclusion
- Special Thanks

I greatly appreciate the faculty and students at Somerset Career and Technical Center letting me observe their instruction and allowing me to interact with them. With the assistance of the facility, I was able to expand my knowledge of Career and Technical Education.

MISSION STATEMENT:

The following mission statement was obtained from Somerset Career and Technical Center's online website. *The website link can be found at the bottom of this page.

Mission:

To provide high school students with experiences and skills are related to career occupations in our region to insure relevance to work in the high school experience and to provide pathways and further occupational preparation.

*Instruction at the Center is based on real life/real world career experiences. In conjunction with specific occupational hands on skills, career and technical instruction also provides critical thinking, research, decision making, problem solving, and team work. Work place safety is taught and practiced in all aspects of instruction. Students apply their skills on a wide variety of real work projects on location at the center and in community. ***

The mission statement of Somerset Career and Technical Center greatly outlines the expectations the facility has of the students and faculty, and was adequately met. I was very pleased with the relationships I observed between students and faculty and relationships between students and their peers.

* <http://www.msad54.org/sctc/mission.shtml>

OVERVIEW:

Upon my arrival at the facility, I was greeted with welcoming faces and students eager to begin their day. I had the chance to ask a few students waiting to board a bus to travel to the off site welding facility a few questions regarding their education through Somerset Career and Technical Center. Once the day began at 8:30 am, I was introduced to the students and faculty and spent the rest of the day traveling to the various programs to observe students and instruction. Throughout the day I had the opportunity to ask students questions regarding their educational experience at the facility, work with the faculty to expand my knowledge of their programs, sit in on a student leadership meeting, and concluded the day with a faculty meeting to hear their concerns and opinions regarding Career and Technical Education.

PROGRAMS:

Of the eleven programs currently offered at Somerset Career and Technical Center, I was able to view ten on site. The following is a list of all the programs currently offered :

Automotive Technology

Residential Construction

Cooperative Education

Digital Graphic Arts

Early Childhood Education

Electrical Construction

Culinary Arts

Health Care Careers

Information Systems Technology

Outdoor Leadership and Skills

Welding

AUTOMOTIVE TECHNOLOGY

The Automotive Technology program epitomized greatly how valuable experience based education is to students. As I walked in, I was offered a pair of safety glasses and joined the students in their work. I observed a few students working diligently with brake pedals on a vehicle, and other students replacing a tire pressure sensor. Each student was working either in the workspace with the automobiles and automotive equipment, or in the classroom. Students in the classroom informed me of common tasks they complete, such as oil changes and working with brakes on vehicles. A heavy theme of math was introduced to me as students explained various roles they partake in daily. Automotive books are provided to the students to expand their knowledge in this field, where they test their knowledge on various lessons. I had the opportunity to discuss with a few students how the skills they were gaining from the program would open opportunities for them in the future. The students that I asked confirmed that their future career goals included working in the automotive industry. One student stated how the program allowed students to obtain his or her Maine Inspection License, and partake in other national safety tests. I admired both the individual abilities and team abilities of the students, and enjoyed seeing the teacher right in the middle of a task with his students.

RESIDENTIAL CONSTRUCTION

The Residential Construction program was a program I unfortunately did not have the pleasure of spending a large amount of time observing. I met the instructor, and briefly saw students diligently working in the classroom and in their work space as I was introduced to the program.

CARPENTRY

I did later, however, find myself observing students in the Carpentry program, a program open to students at the local high school but attached to the Career and Technical Center. In this program, I observed similar themes from ones I witnessed in the Career and Technical classes: responsibility and creativity. A time card is distributed to a student to fill out and reflect on their productivity of the day. The time card evaluates their focus and participation, and places importance on achieving these skills. Although this program may not directly be a Career and Technical program course, it encompassed the many lessons the other Career and Technical courses emphasized, and valued the potential students have to use creativity in their work. I observed students making elaborate furniture and noticed they were exceptionally self sufficient. The instructor explained to me the three levels of courses they offer, the first focusing on the basics of power tools and executing projects, the second level advancing their skills and building furniture, and the third level being an independent study program where students creatively apply their skills to engender projects of their own. This program greatly captures the importance of hard work and independence, and I was pleased to have the unique opportunity to observe this course.

COOPERATIVE EDUCATION:

The Cooperative Education program at the facility allowed me to observe senior instruction. The Cooperative Education programs helps participants to obtain a job and teaches students the skills needed when in the workforce. The topics of discussion for the day included financial literacy, the many steps from interviewing for a job to obtaining a job, and led into the lesson of the day, which was writing a follow up letter to an employer after an interview. The instructor outlined proper employment rejection and acceptance, skills on critiquing one's performance in an interview to better plan for future performance, and broke down the basic necessities of an interview, such as speaking clearly, having enthusiasm, using standard English and reviewing whether or not the interviewee left out any information about himself or herself that would have helped him or her gain the job. Students attentively listened to the information being presented, which would greatly help them when applied in the real world. The instructor brought a great real world application to the students when noting how job interviews students have now, at this point in their lives, could be greatly different from interviews students will have in their future.

DIGITAL GRAPHIC ARTS:

The Digital Graphic Arts program immersed me into the multifarious applications technology has on our world. Artwork was hung around the room, from palpable work to mind games. This program allowed me to observe students uniquely using technology to complete various tasks, each using different programs. As I walked around the room, each student was engaged in a different activity engendering images and using programs beyond ones I have typically been exposed to. From brochures and articles to posters and business cards every student was working on an individual masterpiece. One student walked me through a typical day stating how each assignment holds lessons that eventually lead to a *job*. A *job* was explained to me as a task that utilized the skills of a lesson that would be displayed somewhere in the school, or an assignment from an outside customer. I observed this student work with a program on her computer that allowed her to create a business card as a lesson. She also showed me a poster she had made that was one of her recent *jobs*, one that resembled a poster I would see as the work of a professional printing company. The student put this piece of work in a large binder that I concluded was her portfolio of work. She explained to me that she hopes to work with design in her future. This portfolio allowed me to view some of her outstanding work, and I know will help her when applying to design school. I believe each student has a portfolio, which is a wonderful asset to walk away with after completing their education at Somerset Career and Technical Center. Before leaving, this young woman explained to me how she was graded in the class. She stated that overall she grades herself. She shared with me a piece of paper that logged her performance by rating herself. Daily participation was one aspect that was assessed each class. Some students were working directly with the teacher, while others discussed their individual work. A theme of individualism and self sufficiency was demonstrated in this program, letting the work of the students serve as a paragon for their individual creativity.

EARLY CHILDHOOD EDUCATION:

The Early Childhood Education program was hosted approximately one mile away from the main facility at a local elementary school. I was shown a classroom outside the elementary school where Career and Technical students left their bags and jackets, and was told this was where these students went to gain classroom instruction regarding their field of work. I was welcomed at the school and brought into three classrooms, each with at least one student from the Somerset Career and Technical Center. As I watched the Career and Technical students interact with the elementary students, I was thoroughly impressed with the roles the students took on to assist instruction and the elementary students' needs. From explaining tasks to tying shoes, Career and Technical students demonstrated great responsibility and enforced lessons taught by the classroom teacher. The classroom teacher addressed the Career and Technical students as fellow teachers in front of the students, which encouraged the elementary students to approach the Career and Technical students with any issues. I observed many relationships build as elementary students relied on Career and Technical students, and asked them to partake in activities with them. One young woman I observed assisted in classroom instruction with the elementary teacher, and took it upon herself to assist certain students when needed. Another student I observed worked with the children to reiterate lessons they had been taught recently, like variations of colors and recognizing them in the real world, while helping them wash their hands. Career and Technical students use the downtime in the classroom or transition time from activity to activity to enforce positive behavior among the children. One particular instance that I was thoroughly impressed with was how a Career and Technical student dealt with a conflict that started between two elementary students. A child ran up to the Career and Technical student as she was working with other children exclaiming that an issue surfaced regarding the language of a child's peer. The Career and Technical student addressed the students involved in the dilemma, and reiterated a miniature lesson on using *nice words* and *polite words* over using *bad words*. The Career and Technical student appeared to recall a lesson she had previously learned on how to approach students, by getting down to their level and using words that the children would easily comprehend. This student modeled positive behavior for the children she was working with, and set an example for the younger students to follow. This experience was one that this young woman could have never gained if she had't been working directly with the elementary students through her education at Somerset Career and Technical Center. I later had the opportunity to interview two students in this program who explained to me that they both wanted to somehow work with children in the future. One young woman explained she hoped to work with children with disabilities. Both girls explained how important the classroom instruction they gained, and will continue to gain through the program, applied to their field work. Learning to use specific dialogue with the children, meet age targeted learning stages, learning how children process information, recognizing developmental changes from infants to toddlers and learning how each child has his or her own disposition were just a few of the skills these students explained they were obtaining through this astounding program.

ELECTRICAL CONSTRUCTION:

The Electrical Construction program is broken into two levels, a junior and senior level, like many of the programs at the facility. I observed junior instruction, and saw how students worked on controlled projects that taught the foundations of electrical work. I was informed the senior level program worked extensively with wiring and would work collaboratively with residential construction students to build a model home. The teacher of this program elaborated on the various skills students would use and the methods of residential wiring students would be exposed to. Lessons on construction with romex wiring, service entrance wiring, electrical maintenance and electrical engineering were just a few of the aspects of electrical education this program covered. As I walked around the room, students were able to answer my questions about the project in which they were conducting and the purpose of their activity. One young man explained to me that his future goals required electrical education, a foundation that I was pleased to see he was obtaining here. The two levels of this course allows students to expand their electrical education extensively, and get in depth with the program. I was pleased to see the individual work and teamwork the students portrayed when completing their assigned tasks.

CULINARY ARTS:

The Culinary Arts Program was one of the first programs I observed. I was able to work with the teachers and enjoy the masterpieces the students created. I passed by a classroom with students briefly as one instructor was starting a lesson with the students for the day. During this time I was able to travel across the hall and get a tour of the kitchen, dining space and storage room. Starting in the kitchen, I was shown a chart with all the students names in the program, each with an assigned role for the day. I was informed that roles change frequently so that no one student is assigned the same role each class period, and can gain a well rounded experience of culinary work. Next to the role chart was an evaluation chart with the students' names and a large rubric above, requiring students to draw the symbols from the rubric to reflect on their participation and achievement for the day. Students also fill out a time card to reflect their participation and achievement for the day and have the opportunity to call in as a real employee would to a job if the student is going to be absent or sick, to gain partial credit for the day. This teaches the students responsibility and what results in the absence of one of their colleagues. Students demonstrate both individual strength and team strength through this program as each student is assigned a task but relies on the other students to reach the end goals. The kitchen was supplied with culinary equipment that modeled one of a professional kitchen, giving the students the greatest professional kitchen experience possible. The students also gained great experience with maintenance and hygiene in the kitchen area, having clear instructions to maintain a clean working environment. As I moved into the dining area, where I would later visit to have lunch, I noticed the charts and information promoting healthy eating habits and a focus on the Food Pyramid. One teacher elaborated on the experience students were gaining by being enrolled in this program. She stated that regardless of the careers and lifestyles her students pursue in the future, here they are gaining life skills and abilities many students will never have the opportunity to obtain. Though, some students that have graduated from the program have gone on to be chefs, dietitians, bakers, line cooks and waitresses. This instructor explained that something as simple as knowing how to make items from scratch and applying math and science principles are skills that these students will use to be productive members of society. Students are taught how to break down raw food costs, as food in this program is purchased in bulk, and how to break down individual servings. Conversions are used often, and students learn the importance of serving a well rounded meal. The dining area, known to the community as The Food Place, serves the public two days a week and caters school banquets for groups well over two hundred people. Seniors involved in the program are responsible for creating a menu for the restaurant over a designated period of time, which changes often. The culinary program works hard to keep the prices of their meals low for the public and provide quality food. Students in the culinary program worked diligently and efficiently to create a meal I enjoyed for lunch, and at a very low price. Each student that completes the program will graduate with a ServSafe Certification. At every food establishment, someone on staff must be ServSafe certified at all times, which gives all of these students an advantage when applying for jobs. The experience the students are gaining in the classroom and in the kitchen at this facility is one that is preparing them for great opportunities in the future.

HEALTH OCCUPATIONS:

As I traveled around the Health Occupations room, I felt as though I was placed right inside a medical facility. Students enrolled in the Health Occupations program gain experience in the classroom that they apply with their partnership at a local nursing home, and some, as seniors, use with their opportunity to work at the local hospital. Health Occupations students started their day by sharing with the instructor their experiences at the local nursing home performing clinicals. Clinicals are assignments that students complete by working on the job at local medical facilities with a licensed CNA. On the board at the front of the classroom, students names are blocked out for which times during the week they will perform clinicals. Students elaborated on how the knowledge they were gaining from their reading and studies have been applying to the real work they have been doing. Health Occupations program participants help CNA's and perform tasks on their own for patients, such as bed shampoos, shaving patients with a safety razor or an electric razor, feeding patients, pushing patients in wheelchairs, bathing patients, taking temperatures, cleaning dentures, and helping with personal hygiene activities of others. The instructor brought up the question to the students, *how do roles change when performing tasks for nursing patients that will eventually return home, or providing care for patients in long term residential care*, which students greatly expanded on. Students understand that rehabilitation work requires skill development because the work is not routine, where residential care is more routine based and requires the care to be similar on a daily basis. One student reflected on a lesson reading pulse, respiration, blood pressure and temperature, and how she used that when performing a clinical. The instructor reminded the students the importance of performing tasks that they are sure they can handle, and always asking if they have any questions or know they cannot complete a task. As students talked amongst themselves about their experiences I had the opportunity to speak with the instructor on how the program focuses on more than just getting students their CNA, but making sure they are exposed to the multifarious aspects of health care. Some students, she explained, wish to work as an RN, a pharmacist, a radiologist, and even in physical therapy. All these careers require extensive health education and these students are surely obtaining that here.

INFORMATION SYSTEMS TECHNOLOGY:

As technology is forever evolving in the modern world, Information Systems Technology student's knowledge of technology is evolving along with it. As I observed and interacted with students in the Information Systems Technology program, they demonstrated knowledge of all types of computer systems. Students had computers broken apart, were reassembling computers, and even were working on computer systems to find internal errors. Some students were even designing a website. These Information System Technology students each had an individual interest in the program and used their passions to problem solve. One student explained to me how this program receives broken computers through community members and fixes the error for a customer. Customers and students fill out a repair sheet and demonstrate professional relationships. A dress code is required for these students, which prepares them for the working world. Another student sat down with me and showed me a website and database the students were working on to promote their program, in hopes to receive more computers from community members to fix. One student elaborated that some computers that the program receives are fixed and donated to others who cannot afford a computer. Hard work and charity were two themes these students valued, which will help them succeed greatly in their future.

OUTDOOR LEADERSHIP AND SKILLS

The Outdoor Resources room was equipped with tools that set the outdoor scene ideally for the students enrolled in the program. This two year program allows students to complete ropes courses, travel on open water, create maps and read compasses, and most importantly gives these students the skills they need to be successful in the outdoor environment. As I circulated around the room, I observed students looking over a topographical map they had completed as a previous assignment with a legend and coding. These students were able to explain to me the assignment and elaborated on the elements of their map. Each student had a unique map of an island but met the criteria the teacher had asked for. As the teacher moved on in his lesson he transitioned into work using a compass, helping the students learn navigation skills. I learned that some students who graduate from this program will go on to start private businesses or become professionals in their area of interest in outdoor leadership. A component of this class that a faculty members noted was that these students are not only learning skills themselves but are learning to teach them to others. Disseminating knowledge of unique skills to one's peers is an ability that many students do not acquire until later on in their education.

WELDING:

The Welding program was hosted off site from Somerset Career and Technical Center, so I did not have the opportunity to observe students and instruction in this program. I did, however, have the chance to meet with two students involved in the program that were waiting to board the bus traveling to the welding facility. These students informed me on how they planned to use the skills they were gaining in this program to meet future goals. Both students explained to me how welding work was like a job, and had a very individual approach. One student informed me it was her second year in the program. The Welding program is one I hope to observe in the future.

STUDENT INTERVIEWS:

I had the opportunity to informally interview students when traveling between programs, at lunch, and during downtime in particular programs. Each student I briefly interviewed expressed a positive reflection of his or her work through Somerset Career and Technical Center.

One theme I noticed from the information and opinions I gained from the students at the facility proved to be quite common. Each student explained to me that the skills they are learning at Somerset Career and Technical Center will help them meet their future goals. Every student involved with these programs is unique, and has his or her own passions and aspirations. The skills the educators at Somerset Career and Technical Center are instructing are ones these students greatly appreciate, and recognize will be used to make them the leaders of tomorrow.

Values that students in the program are gaining include responsibility, professionalism, dutifulness, self sufficiency and cooperation. Regardless of the task at hand, every student involved with the programs at Somerset Career and Technical Center is gaining skills that will help each one of them lead positive lives as citizens and leaders in the workforce.

STUDENT LEADERSHIP MEETING:

I was invited to sit in on a Student Leadership meeting on the afternoon of my visit, and was greatly impressed with the topics of discussion the students chose. I inquired how students were selected to be on this committee and found that teachers at the facility recommended students who they felt demonstrated qualities that would benefit the Student Leadership council. There was one young woman, who was the chair of the committee, who took notes on the meeting and reported out updates to the rest of the group. Some students gave up instruction time to be present, which showed great dedication. I found that the committee focuses on community service roles and describes themselves comparatively to a high school student government. The team discussed their current efforts on a food drive, coat drive and toy drive during this holiday season. They transitioned into the discussion of a mentoring club that would assign students, who volunteered, to be mentors. Mentors would visit elementary schools to mentor students, work with them, and even play games with them. One particular focus of the meeting, which I admired greatly, was the student's emphasis on ensuring their peers experience at Somerset Career and Technical Center be positive and rewarding. The students spoke of creating a survey to gain student input and evaluations directly from students. Below I listed a few topics students on the team were interested in finding more information about:

- adequate safety equipment
- teachers various teaching styles
- school climate
- effective time usage
- communication

These students expressed a deep interest in bettering the school climate, and I greatly enjoyed seeing their dedication to their peers and work.

DISCUSSIONS WITH FACULTY MEMBERS:

At the conclusion of my observation, I had the opportunity to meet with the faculty and hear their concerns and views on Career and Technical Education. The faculty was very welcoming of my interest to hear their concerns and provided me with the following concerns:

- Achieving a common calendar would help alleviate scheduling issues for student enrollment
- Earning high school credits for applicable work in Career and Technical Education
Example: One student may gain a science credit for their work in the Culinary Arts program at one high school, but another student, doing the same work, will not gain the same credit at a different high school. (have credits distributed evenly across the state)
- Less time for Career and Technical Education when more credits are required in the general high school setting. This issue led into a discussion of lower enrollment in Career and Technical Education when students cannot fit regular high school credits into their schedules. This then brought up the potential partnership with the local high school attached to the Career and Technical Center offering regular high school classes to students enrolled in the Career and Technical Center to avoid lower enrollment and avoid scheduling conflicts.
- Removing the stigma that students that attend Career and Technical Centers will not attend college
- Fiscal assistance for rural Career and Technical programs
- Better representation of students enrolled at the facility; having a more even number of students from each district enrolled (five districts are currently enrolled in this facility)
- Guidance counselors working to promote Career and Technical program degrees that offer high quality education and career opportunities. One concern among the faculty members was that many students pursuing Career and Technical careers are emerged in superfluous debt because of misguided degree requirements.
- Helping students learn how they will be able to apply and what they will be able to do with the degrees they hope to obtain
- Clarifying misconceptions of salaries for certain careers
- Working to mandate that all schools include Career and Technical Program course offerings in their high schools' Course Description/Offerings catalogues
- Working within the Career and Technical field to help students become more self-directed
- Finding new ways to expose children to career opportunities at a younger age, before high school
- **Gaining a general idea of what students in Maine think Career and Technical Education is

**I have offered to help conduct a survey to identify what students in Maine think Career and Technical Education entails.

CONCLUSION:

My experience observing Career and Technical Education at Somerset Career and Technical Center has attributed to my greater understanding of the role Career and Technical Education plays in the education system. I am very pleased with the work the students and instructors are doing on a daily basis at the facility and appreciate their hard work and dedication. The passion each student I had the pleasure of meeting demonstrated for his or her work was inspiring. Both teamwork and self sufficiency were greatly valued by the students and faculty at the facility and will lead to great advances in the student's education. Many instructors explained to me how their programs incorporated real world duties and examples, such as time cards, and offered some form of state or national certification or testing. The skills the students are gaining at the facility go beyond just information they will need if they choose to pursue a career in the field they are working and studying in now; the skills the students are gaining are ones that will lead them to make positive decisions in their future. Each student learns to approach issues with a unique perspective, and learns how to become a well rounded leader of tomorrow.

SPECIAL THANKS:

I would like to give special thanks to Mr. David Dorr and Somerset Career and Technical Center for allowing me to observe instruction, work with the students and faculty, and allowing me to better my understanding of Career and Technical Education. Mr. Dorr served as a paragon for how drive and passion can lead to endless opportunities in life. He is working hard to implement a pre-engineering program at the facility, and has been an instrumental part in helping the Skowhegan area receive grants to form a robotics team. As the Director at Somerset Career and Technical Center he not only works hard as an administrator, but takes the time to develop a professional relationship with each of the students, reminding them that he cares about their education and is there to make their dreams become a reality. I appreciate his work and the work of the entire administration at Somerset Career and Technical Center, and am honored to have had the opportunity to work with them.